

CLAIMS

What is Claimed is:

- 5 1. A method of diagramming a network having a plurality of devices, comprising the steps of:
- a) determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;
- b) determining one or more groups in each hierarchical layer, wherein each
10 group includes at least one device;
- c) determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;
- d) forming a first cross-sectional representation corresponding to said first
15 linked group, wherein said first cross-sectional representation has a first inner portion representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and
- e) forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional representation, wherein each
20 initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from said first associated group and a second associated group having at least one group

from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

2. A method as recited in Claim 1 further comprising the steps of:

f) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

g) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth

hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

3. A method as recited in Claim 2 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

4. A method as recited in Claim 2 further comprising the steps of:

h) forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

i) forming a plurality of next reduced-size cross-sectional representations each located in each section of said third outer portion of said third cross-sectional

representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located, and wherein each third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

5. A method as recited in Claim 1 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

6. A method as recited in Claim 1 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

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7. A method of diagramming a network having a plurality of devices,
comprising the steps of:

a) determining a plurality of hierarchical layers for said network, wherein
said devices are arranged in said hierarchical layers;

5 b) determining one or more groups in each hierarchical layer, wherein each
group includes at least one device; and

c) forming a multi-layered cross-sectional diagram corresponding to said
network, wherein said multi-layered cross-sectional diagram has a plurality of cross-
sectional representations which are similar to each other, wherein said plurality of
cross-sectional representations have a plurality of sizes, and wherein each cross-
sectional representation is adapted to represent a group from a hierarchical layer and
one or more other groups from another hierarchical layer.

8. A method as recited in Claim 7 wherein said step c) includes:

c1) determining a first linked group having a first group from a first
hierarchical layer and a first associated group having at least one group from a second
hierarchical layer;

c2) forming a first cross-sectional representation corresponding to said first
linked group, wherein said first cross-sectional representation has a first inner portion
20 representing said first group and a first outer portion having one or more sections each
section corresponding to a group from said first associated group; and

c3) forming a plurality of initial reduced-size cross-sectional representations
each located in each section of said first cross-sectional representation, wherein each

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initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

9. A method as recited in Claim 8 wherein said step c) further comprises the steps of:

c4) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

c5) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said

second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

10. A method as recited in Claim 9 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

11. A method as recited in Claim 9 wherein said step c) further comprises the steps of:

c6) forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion

configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

5 c7) forming a plurality of next reduced-size cross-sectional representations each located in each section of said third outer portion of said third cross-sectional representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located, and wherein each third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

20 12. A method as recited in Claim 8 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

13. A method as recited in Claim 8 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

14. A computer system comprising:

a bus;

a processor coupled to said bus; and

a memory device coupled to said bus and having computer-executable instructions stored therein for performing a method of diagramming a network having a plurality of devices, said method comprising the steps of:

a) determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;

b) determining one or more groups in each hierarchical layer, wherein each group includes at least one device;

c) determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;

d) forming a first cross-sectional representation corresponding to said first linked group, wherein said first cross-sectional representation has a first inner portion representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and

e) forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional representation, wherein each initial reduced-size cross-sectional representation is similar to said first cross-sectional

representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

15. A computer system as recited in Claim 14 further comprising the steps of:

f) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

g) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation,

wherein each group from said second associated group forms one of a plurality of third linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

16. A computer system as recited in Claim 15 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

17. A computer system as recited in Claim 15 further comprising the steps of:

h) forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-

size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

i) forming a plurality of next reduced-size cross-sectional representations each located in each section of said third outer portion of said third cross-sectional representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located, and wherein each third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

18. A computer system as recited in Claim 14 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

19. A computer system as recited in Claim 14 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

20. A computer system comprising:

a bus;

a processor coupled to said bus; and

5 a memory device coupled to said bus and having computer-executable instructions stored therein for performing a method of diagramming a network having a plurality of devices, said method comprising the steps of:

a) determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;

10 b) determining one or more groups in each hierarchical layer, wherein each group includes at least one device; and

c) forming a multi-layered cross-sectional diagram corresponding to said network, wherein said multi-layered cross-sectional diagram has a plurality of cross-sectional representations which are similar to each other, wherein said plurality of cross-sectional representations have a plurality of sizes, and wherein each cross-sectional representation is adapted to represent a group from a hierarchical layer and one or more other groups from another hierarchical layer.

21. A computer system as recited in Claim 20 wherein said step c) includes:

20 c1) determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;

c2) forming a first cross-sectional representation corresponding to said first linked group, wherein said first cross-sectional representation has a first inner portion representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and

5 c3) forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional representation, wherein each initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from
10 said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size
15 inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

22. A computer system as recited in Claim 21 wherein said step c) further
20 comprises the steps of:

c4) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each

portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

5 c5) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third
10 linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group
15 which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

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23. A computer system as recited in Claim 22 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

24. A computer system as recited in Claim 22 wherein said step c) further comprises the steps of:

c6) forming a third cross-sectional representation corresponding to one of
5 said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation
10 is similar to said second cross-sectional representation; and

c7) forming a plurality of next reduced-size cross-sectional representations
each located in each section of said third outer portion of said third cross-sectional
representation, wherein each next reduced-size cross-sectional representation is
similar to said third cross-sectional representation, wherein each group from said third
15 associated group forms one of a plurality of fourth linked groups each fourth link group
having said group from said third associated group and a fourth associated group
having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents
20 said group which is from said third associated group and which is associated with said
section in which said third reduced-size inner portion is located, and wherein each
third reduced-size outer portion has one or more third reduced-size sections each third

reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

25. A computer system as recited in Claim 21 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

26. A computer system as recited in Claim 21 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

27. A computer-readable medium comprising computer-executable instructions stored therein for performing a method of diagramming a network having a plurality of devices, said method comprising the steps of:

- a) determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;
- b) determining one or more groups in each hierarchical layer, wherein each group includes at least one device;
- c) determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;
- d) forming a first cross-sectional representation corresponding to said first linked group, wherein said first cross-sectional representation has a first inner portion

representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and

e) forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional representation, wherein each initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

28. A computer-readable medium as recited in Claim 27 wherein said method further comprises the steps of:

f) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-

sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

g) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

29. A computer-readable medium as recited in Claim 28 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

30. A computer-readable medium as recited in Claim 28 wherein said method further comprises the steps of:

h) forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

i) forming a plurality of next reduced-size cross-sectional representations each located in each section of said third outer portion of said third cross-sectional representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located, and wherein each third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

31. A computer-readable medium as recited in Claim 27 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

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32. A computer-readable medium as recited in Claim 27 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

33. A system for diagramming a network having a plurality of devices,
10 comprising:

a) means for determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;

b) means for determining one or more groups in each hierarchical layer, wherein each group includes at least one device;

15 c) means for determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;

d) means for forming a first cross-sectional representation corresponding to said first linked group, wherein said first cross-sectional representation has a first inner
20 portion representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and

e) means for forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional

representation, wherein each initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

34. A system as recited in Claim 33 further comprising:

- f) means for forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and
- g) means for forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said

second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

35. A system as recited in Claim 34 wherein a miniature version of one of said additional reduced-size cross-sectional representations is located in each reduced-size section of each initial reduced-size cross-sectional representation.

36. A system as recited in Claim 34 further comprising:

h) means for forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size

outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

i) means for forming a plurality of next reduced-size cross-sectional

5 representations each located in each section of said third outer portion of said third cross-sectional representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth
10 associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located,
15 and wherein each third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

37. A system as recited in Claim 33 wherein said first cross-sectional
20 representation and said initial reduced-size cross-sectional representations each have a circular shape.

38. A system as recited in Claim 33 wherein said first outer portion and said reduced-size outer portions each have a ring shape.

39. A computer-readable medium comprising computer-executable
5 instructions stored therein for performing a method of diagramming a network having a plurality of devices, said method comprising the steps of:

a) determining a plurality of hierarchical layers for said network, wherein said devices are arranged in said hierarchical layers;

b) determining one or more groups in each hierarchical layer, wherein each
10 group includes at least one device; and

c) forming a multi-layered cross-sectional diagram corresponding to said network, wherein said multi-layered cross-sectional diagram has a plurality of cross-sectional representations which are similar to each other, wherein said plurality of cross-sectional representations have a plurality of sizes, and wherein each cross-sectional representation is adapted to represent a group from a hierarchical layer and
15 one or more other groups from another hierarchical layer.

40. A computer-readable medium as recited in Claim 39 wherein said step c) includes:

20 c1) determining a first linked group having a first group from a first hierarchical layer and a first associated group having at least one group from a second hierarchical layer;

c2) forming a first cross-sectional representation corresponding to said first linked group, wherein said first cross-sectional representation has a first inner portion representing said first group and a first outer portion having one or more sections each section corresponding to a group from said first associated group; and

5 c3) forming a plurality of initial reduced-size cross-sectional representations each located in each section of said first cross-sectional representation, wherein each initial reduced-size cross-sectional representation is similar to said first cross-sectional representation, wherein each group from said first associated group forms one of a plurality of second linked groups each second linked group having said group from
10 said first associated group and a second associated group having at least one group from a third hierarchical layer, wherein each initial reduced-size cross-sectional representation has a reduced-size outer portion and a reduced-size inner portion, wherein each reduced-size inner portion represents said group which is from said first associated group and which is associated with said section in which said reduced-size
15 inner portion is located, and wherein each reduced-size outer portion has one or more reduced-size sections each reduced-size section corresponding to a group from said second associated group of one of said second linked groups.

41. A computer-readable medium as recited in Claim 40 wherein said step c)
20 further comprises the steps of:

c4) forming a second cross-sectional representation corresponding to one of said initial reduced-size cross-sectional representations, wherein said second cross-sectional representation has a second outer portion and a second inner portion each

portion configured to represent an enlarged version of said reduced-size outer portion and said reduced-size inner portion respectively of said initial reduced-size cross-sectional representation, wherein said second cross-sectional representation is similar to said first cross-sectional representation; and

5 c5) forming a plurality of additional reduced-size cross-sectional representations each located in each section of said second outer portion of said second cross-sectional representation, wherein each additional reduced-size cross-sectional representation is similar to said second cross-sectional representation, wherein each group from said second associated group forms one of a plurality of third
10 linked groups each third linked group having said group from said second associated group and a third associated group having at least one group from a fourth hierarchical layer, wherein each additional reduced-size cross-sectional representation has a second reduced-size outer portion and a second reduced-size inner portion, wherein each second reduced-size inner portion represents said group
15 which is from said second associated group and which is associated with said section in which said second reduced-size inner portion is located, and wherein each second reduced-size outer portion has one or more second reduced-size sections each second reduced-size section corresponding to a group from said third associated group of one of said third linked groups.

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42. A computer-readable medium as recited in Claim 41 wherein a miniature version of one of said additional reduced-size cross-sectional representations is

located in each reduced-size section of each initial reduced-size cross-sectional representation.

43. A computer-readable medium as recited in Claim 41 wherein said step c)

5 further comprises the steps of:

c6) forming a third cross-sectional representation corresponding to one of said additional reduced-size cross-sectional representations, wherein said third cross-sectional representation has a third outer portion and a third inner portion each portion configured to represent an enlarged version of said second reduced-size outer portion and said second reduced-size inner portion respectively of said additional reduced-size cross-sectional representation, wherein said third cross-sectional representation is similar to said second cross-sectional representation; and

c7) forming a plurality of next reduced-size cross-sectional representations each located in each section of said third outer portion of said third cross-sectional representation, wherein each next reduced-size cross-sectional representation is similar to said third cross-sectional representation, wherein each group from said third associated group forms one of a plurality of fourth linked groups each fourth link group having said group from said third associated group and a fourth associated group having at least one group from a fifth hierarchical layer, wherein each next reduced-size cross-sectional representation has a third reduced-size outer portion and a third reduced-size inner portion, wherein each third reduced-size inner portion represents said group which is from said third associated group and which is associated with said section in which said third reduced-size inner portion is located, and wherein each

third reduced-size outer portion has one or more third reduced-size sections each third reduced-size section corresponding to a group from said fourth associated group of one of said fourth linked groups.

5 44. A computer-readable medium as recited in Claim 40 wherein said first cross-sectional representation and said initial reduced-size cross-sectional representations each have a circular shape.

10 45. A computer-readable medium as recited in Claim 40 wherein said first outer portion and said reduced-size outer portions each have a ring shape.